

Amendments to the Specification:

Please amend the title of this application to read:

System and Method for Printing a Pattern Using a Saturable Absorber

Please replace paragraph [002] with the following amended paragraph:

[002] The present invention relates to systems and methods for printing patterns and especially systems and methods for utilizing saturable absorbers for printing sub-micron ~~pattern~~ patterns on wafers and masks.

Please replace paragraph [003] with the following amended paragraph:

[003] A material can be regarded as a saturable absorber if ~~his~~ its light absorption decreases with increasing light intensity. There are various organic as well as synthetic materials that are used as saturable absorbers within optical systems.

Please replace paragraph [005] with the following amended paragraph:

[005] Integrated circuits are very complex devices that include multiple layers. Each layer may include conductive material~~[[,]]~~ and isolating material while other layers may include semi-conductive materials. These various materials are arranged in patterns, usually in accordance with the expected functionality of the integrated circuit. The patterns also reflect the manufacturing process of the integrated circuits.

Please replace paragraph [008] with the following amended paragraph:

[008] The invention provides a method for recording a pattern, the method includes the stages of: (i) determining an illumination scheme in response to the pattern; and (ii) directing, in response to the determination, at least one beam of radiation having a first cross-section towards ~~an~~ a saturable absorber ~~such~~ so as to allow a portion of said ~~beam~~ beam to propagate towards a radiation sensitive layer; wherein the portion has a second cross-section that is smaller than the first cross-section.

Please replace paragraph [009] with the following amended paragraph:

[009] The invention provides a system for recording a pattern, the system includes: (i) a controller, for determining an illumination scheme in response to the pattern; and (ii) optics, connected to the controller, for directing, in response to the determination, at least one beam of radiation having a first cross-section towards ~~an~~ a saturable absorber ~~such~~ so as to allow a portion of said ~~beam~~ beam to propagate towards a radiation sensitive layer; wherein the portion has a second cross-section that is smaller than the first cross-section.

Please replace paragraph [0015] with the following amended paragraph:

[0015] A beam of radiation 30 is focused, by an objective lens 20, substantially onto an intermediate layer 16 that includes saturable absorbers. The intensity of the beam decreases at larger distances from the beam center. Typical beams have an Arie profile or a Gaussian profile, but this is not necessarily so. The intensity of the beam decreases when the distance from the beam center increases. The saturable absorber material of intermediate layer 16 will become transparent at a certain intensity level, that is below the peak intensity level ~~[[()]]~~ at the center of the beam, ~~such as~~ so that a portion of the beam illuminates the radiation sensitive layer 14. The intensity of the beam as well as the properties of the saturable absorbers are adjusted to achieve ~~an~~ a required spot size upon the radiation sensitive layer 14.

Please replace paragraph [0016] with the following amended paragraph:

[0016] Referring to Figure 2, illustrating a system 100 that includes a controller 42 as well as optics 43. Optics 43 includes, for example, additional optics 46 as well as a radiation source, such as pento-second laser 40 having a wavelength of few hundred nanometer ~~and~~ or even less. Laser 40 is controlled by the controller 42 that is capable of converting a pattern to an illumination scheme. The controller 42 usually co-operates with (or controls) ~~with~~ a stage 44 that supports the object 12 and provides a relative translation between the laser and the object. Additional optics 46 is usually positioned between laser 40 and objective lens 20, said additional optics may include collimating optics, polarizing optics and the like. At least a part of said additional optics 46 (for example programmable filters) can be controlled by controller 42.

Please replace paragraph [0020] with the following amended paragraph:

Figure 3 is a flow chart of method 120 for printing a pattern. Method 120 includes stage 122 of determining an illumination scheme in response to the pattern, and stage 124 of directing, in response to the determination, at least one beam of radiation having a first cross-section towards ~~an~~ a saturable absorber ~~such~~ so as to allow a portion of said ~~beam~~ beam to propagate towards a radiation sensitive layer; ~~whereas~~ wherein the portion has a second cross-section that is smaller than the first cross-section.